



## TABLE OF CONTENTS

LIST OF ACRONYMS .....	iv
------------------------	----

### **CHAPTER 1.....1-1**

1.1 Introduction.....	1-1
1.2 Project Background.....	1-2
1.2.1 Project Location .....	1-2
1.2.2 Existing Conditions .....	1-2
1.2.3 Corridor Planning.....	1-3
1.2.3.1 UDOT Plans.....	1-3
1.2.3.2 Mountainland Association of Governments Plans .....	1-4
1.2.3.3 Local Plans .....	1-7
1.3 Purpose of the Project.....	1-8
1.4 Need for the Project.....	1-8
1.4.1 Accommodate Utah County Growth.....	1-8
1.4.2 Satisfy Travel Demand .....	1-9
1.4.3 Improve Safety .....	1-13
1.4.3.1 Accident Rates .....	1-13
1.4.4 Linkage Compatibility .....	1-13
1.5 Objectives of the Proposed Project .....	1-14
1.6 Related Environmental Documents and Relevant Planning Studies.....	1-14

### **CHAPTER 2.....2-1**

2.1 Alternative Development.....	2-1
2.1.1 No-Action Alternative .....	2-1
2.1.2 TSM/TDM Alternative.....	2-1
2.1.3 Transit Alternative .....	2-2
2.1.4 132-ft Roadway alternative .....	2-2
2.1.5 117-ft roadway alternative .....	2-2
2.1.5.1 Capacity.....	2-15
2.1.5.2 Safety .....	2-19
2.1.5.3 State, Regional, and Local Plans .....	2-19
2.1.5.4 Impacts .....	2-19

### **CHAPTER 3.....3-1**

3.1 Land Use.....	3-2
3.2 Farmlands .....	3-5
3.3 Social Impacts .....	3-6
3.4 Environmental Justice Populations.....	3-9
3.5 Relocations .....	3-11

3.6 Economics .....	3-13
3.7 Pedestrian and Bicyclist Considerations .....	3-14
3.8 Air Quality .....	3-15
3.9 Noise .....	3-19
3.10 Floodplains .....	3-23
3.11 Water Quality .....	3-24
3.12 Wetlands .....	3-28
3.13 Wildlife .....	3-30
3.14 Threatened and Endangered species .....	3-30
3.15 Invasive Species.....	3-31
3.16 Historic and Archaeological Resources.....	3-32
3.17 Hazardous Waste Sites.....	3-49
3.18 Visual Conditions .....	3-50
3.19 Energy .....	3-51
3.20 Construction Impacts .....	3-51
3.21 Cumulative Impacts .....	3-53
3.22 Context Sensitive Solutions .....	3-58
3.23 Comparison Summary of the Predicted Environmental Effects of Alternatives.....	3-58

## **CHAPTER 4.....4-1**

4.1 Agency Scoping .....	4-1
4.2 Technical Advisory Committee.....	4-1
4.3 Public Outreach .....	4-1
4.4 Coordination .....	4-2
4.5 Coordination Documents.....	4-10

APPENDIX A: PREFERRED ALTERNATIVE

APPENDIX B: POTENTIAL RELOCATIONS & RIGHT-OF-WAY IMPACTS

APPENDIX C: SOUND LEVEL CONTOURS

APPENDIX D: COORDINATION DOCUMENTS

## **LIST OF TABLES**

Table 1-1. Growth Summary .....	1-9
Table 1-2. Level of Service A through F.....	1-9
Table 1-3. Utah/Wasatch Front Level of Service in Vehicles Per Day (vpd).....	1-10
Table 1-4. Traffic Volumes and LOS for Existing State Street Conditions .....	1-10
Table 1-5. Existing and 2030 PM Peak Intersection LOS for Existing State Street Conditions.....	1-11
Table 1-6. Operational Safety Report Accident Data Summary .....	1-13
Table 1-7. Operational Safety Report Accident Type .....	1-13
Table 2-1. 2030 Roadway LOS Without and With Improvements.....	2-16
Table 2-2. 2030 Intersection PM Peak LOS .....	2-17
Table 2-3. Alternatives Considered .....	2-20
Table 3-1. Socio-Demographic Characteristics of Project Area.....	3-7
Table 3-2. Potential Relocations and Potential Proximity Impacts .....	3-12
Table 3-3. Traffic Volumes for 2030 State Street .....	3-17
Table 3-4. UDOT Noise Abatement Criteria.....	3-19
Table 3-5. Existing Noise Levels.....	3-20

Table 3-6. Existing Noise Impacts.....	3-20
Table 3-7. No-Action Alternative Noise Impacts .....	3-21
Table 3-8. No-Action Alternative Noise Impacts .....	3-21
Table 3-9. Drainage Summary .....	3-27
Table 3-10. NRHP Criteria for Evaluation.....	3-33
Table 3-11. Utah SHPO Rating Definitions for Historic Structures .....	3-33
Table 3-12. Results of the RLS .....	3-34
Table 3-13. Cultural Sites in Project Area .....	3-43
Table 3-14. Impacts of Preferred Alternative on Cultural Resources.....	3-45
Table 3-15. Leaking Underground Storage Tanks .....	3-49
Table 3-16. Reasonably Foreseeable Future Projects .....	3-55
Table 3-17. Environmental Effects Comparison Summary.....	3-59
 Table 4-1. Coordination Documents .....	4-10

## LIST OF FIGURES

Figure 1-1. Project Location.....	1-1
Figure 1-2. Existing Roadway Configurations.....	1-2
Figure 1-3. UDOT Functional Classification Map .....	1-3
Figure 1-4. MAG RTP Roadway Classifications.....	1-4
Figure 1-5. MAG RTP Phasing .....	1-5
Figure 1-6. MAG RTP Transit Plans.....	1-5
Figure 1-7. Traffic Volumes and PM Peak LOS for Existing State Street Conditions .....	1-10
Figure 1-8. Existing (2007) PM Peak Intersection LOS .....	1-12
Figure 1-9. Projected (2030) PM Peak Intersection LOS.....	1-12
 Figure 2-1. 132-ft Cross Section .....	2-2
Figure 2-2. 117-ft Cross Section .....	2-3
Figure 2-3. 100 East to 500 East American Fork Cross Section .....	2-3
Figure 2-4. Existing and Proposed Signalized Intersections .....	2-4
Figure 2-5. 2030 Roadway LOS Without and With Improvements .....	2-17
Figure 2-6. 2030 LOS without Intersection Improvements.....	2-18
Figure 2-7. 2030 LOS with Intersection Improvements.....	2-19
 Figure 3-1. Direct, Indirect, and Cumulative Impacts.....	3-1
Figure 3-2. Zoning Map .....	3-3
Figure 3-3. Land Use Master Plans.....	3-3
Figure 3-4. Parks in the Project Area.....	3-4
Figure 3-5. Neighborhood Groups.....	3-7
Figure 3-6. Non-attainment Areas .....	3-16
Figure 3-7. Floodplains in Project Area.....	3-23
Figure 3-8. Future Storm Water Drainage System .....	3-26
Figure 3-9. Wetlands in Project Area .....	3-29
Figure 3-10. Historic Properties .....	3-37
Figure 3-11. Historic Properties .....	3-39
Figure 3-12. Historic Properties .....	3-41
Figure 3-13. Impacts to Historic Properties.....	3-47

## LIST OF ACRONYMS

AASHTO	American Association of State Highway and Transportation Officials	SHPO	State Historic Preservation Office
ACHP	Advisory Council on Historic Preservation	SIP	State Implementation Plan
APAs	Agricultural Protection Areas	SO <sub>2</sub>	Sulfur Dioxide
AVG	Average	STIP	Statewide Transportation Improvement Plan
BMP	Best Management Practice	SWPPP	Storm Water Pollution Prevention Plan
BRT	Bus Rapid Transit	TAC	Technical Advisory Committee
CEQ	Council on Environmental Quality	TDM	Transportation Demand Management
CERCLIS	Comprehensive Emergency Response, Compensation, and Liability Information System	TDS	Total Dissolved Solids
CO	Carbon Monoxide	TNM	Traffic Noise Model
CSS	Context Sensitive Solutions	TSM	Transportation System Management
CWA	Clean Water Act	TSS	Total Suspended Solids
dBA	A-weighted decibels	UDAQ	Utah Division of Air Quality
DERR	Division of Environmental Response and Remediation	UDEQ	Utah Department of Environmental Quality
DOEFOE	Determination of Eligibility and Finding of Effect	UDOT	Utah Department of Transportation
DOT	Department of Transportation	UDWQ	Utah Division of Water Quality
EIS	Environmental Impact Statement	UPRR	Union Pacific Railroad
EPA	Environmental Protection Agency	USACE	United States Army Corps of Engineers
ES	Environmental Study	USDOT	United States Department of Transportation
ESA	Endangered Species Act	USFWS	United States Fish and Wildlife Service
FEMA	Federal Emergency Management Agency	UST	Underground Storage Tank
FHWA	Federal Highway Administration	UTA	Utah Transit Authority
FPPA	Farmland Protection Policy Act	VOC	Volatile Organic Compounds
ft	foot (feet)	VPD	Vehicles Per Day
ft <sup>2</sup>	square foot (feet)		
HHS	Health and Human Services		
L(eq)	Equivalent (or average) Noise Level		
LOS	Level-of-service		
LUST	Leaking Underground Storage Tank		
LWCF	Land and Water Conservation Fund		
MAG	Mountainland Association of Governments		
MOA	Memorandum of Agreement		
MPO	Metropolitan Planning Organization		
MOU	Memorandum of Understanding		
NAAQS	National Ambient Air Quality Standards		
NEPA	National Environmental Policy Act		
NHPA	National Historic Preservation Act		
NO <sub>2</sub>	Nitrogen Dioxide		
NOI	Notice of Intent		
NOx	Oxides of Nitrogen		
NRCS	Natural Resources Conservation Service		
NRHP	National Register of Historic Places		
O <sub>3</sub>	Ozone		
OSR	Operational Safety Report		
PM <sub>10</sub>	Particulate Matter with a diameter of less than 10 micrometers		
RCRA	Resource Conservation and Recovery Act		
RLS	Reconnaissance Level Survey		
RTP	Regional Transportation Plan		
SEC	Seconds		